

Application No. 09/996,161

RXSD 1022-1

REMARKS

In the Official Action mailed 19 July 2005, the Examiner reviewed claims 1-34. The Examiner rejected claims 1-2, 4, 8, 10-12, 14-15, 18, 20-22, 25 and 27-29 under 35 U.S.C. §102(e); rejected claims 3 and 13 under 35 U.S.C. §103(a); rejected claims 6, 16, 23 and 30 under 35 U.S.C. §103(a); rejected claims 7, 17, 24 and 31; and rejected claims 9, 19, 26 and 33 under 35 U.S.C. §103(a) under 35 U.S.C. §103(a).

Claims 1, 11, 21, 27 are amended. Claims 1-34 remain pending.

The Examiner's and rejections are respectfully traversed below.

Examiner Interview

Examiner Tran and the undersigned held a telephonic interview on 17 October 2005, and discussed Horn et al. (US Patent No. 6, 379,314), and the claims 1 and 7. No agreement was reached.

Rejection of Claims 1-2, 4, 8, 10-12, 14-15, 18, 20-22, 25 and 27-29 under 35 U.S.C. §102(e)

The Examiner rejected claims 1-2, 4, 8, 10-12, 14-15, 18, 20-22, 25 and 27-29 under 35 U.S.C. §102(e) as anticipated by Horn et al (US Patent No. 6, 379,314). Applicant respectfully requests reconsideration. Independent claims 1, 11, 21 and 27 have been amended to clarify that the second sub-stimulus is "...adapted to reduce one or both of harmonic distortion and quantization errors in the audible stimulus."

As argued previously, the independent claims had been amended to clarify that the stimulus is generated using a digital stimulus signal that is a combination of the first sub-stimulus and second sub-stimulus. The Examiner cites column 7, lines 31-45 of Horn where use of a noise signal called a background sound probe is described for the purpose of minimizing variables in the hearing test. The "background sound probe" of Horn, described in the cited passage is used with a series of "pure tones", which act as stimulus in the test, for the purpose of minimizing variables that relate to the user's environment during the test (See, Horn, col. 7, lines 1-5). Apparently, the Examiner is reading the background sound probe as the first sub-stimulus and the tone as the second sub-stimulus when the tone is at a level below that detected by the person being tested.

Application No. 09/996,161

RXSD 1022-1

In fact, the method described in Horn relies on both the noise signal and the tone used as stimulus during the hearing test, being in the audible range. The test principle is finding the "critical ratio" the local tone-to-noise ratio at which the tone becomes audible in the noise. This critical ratio tends to increase for impaired ears because the impaired ear gathers noise energy over a wider frequency range than does the normal ear and thus the tone must be at a higher level to compete with the noise. However, the procedure of Horn requires the tone AND the noise (i.e., both sub-stimuli) to be heard.

The present invention is directed to a completely different problem. As should be clear upon review of the amendment, the present invention relates to generating a stimulus using a digital stimulus signal which results in an audio stimulus having reduced quantization errors and reduced harmonic distortion.

Thus, the independent claims 1, 11, 21 and 27 have been amended to clarify this feature of the invention, without loss of scope.

Accordingly, reconsideration of the rejection of claims 1-2, 4, 8, 10-12, 14-15, 18, 20-22, 25 and 27-29, as amended is respectfully requested.

Rejection of Claims 3 and 13 under 35 U.S.C. §103(a)

The Examiner rejected claims 3 and 13 as unpatentable over Horn et al (US Patent No. 6,379,314) in view of alleged "Official Notice." Claims 3 and 13 depend from claims 1 and 11, respectively, and are allowable on that basis, and because of the unique combinations recited. Applicant respectfully requests reconsideration.

Rejection of Claims 6, 16, 23 and 30 under 35 U.S.C. §103(a)

The Examiner rejected claims 6, 16, 23 and 30 as unpatentable over Horn et al (US Patent No. 6,379,314) in further view of Davis et al (US Patent No. 6,201,875). Claims 6, 16, 23 and 30 depend from claims 1, 11, 21 and 27 respectively, and are allowable on that basis, and because of the unique combinations recited. Applicant respectfully requests reconsideration.

Application No. 09/996,161

RXSD 1022-1

Rejection of Claims 7, 17, 24 and 31 under 35 U.S.C. §103(a)

The Examiner rejected claims 7, 17, 24 and 31 as unpatentable over Horn et al (US Patent No. 6,379,314) in further view of Priddy et al (US Patent No. 5,774,216) Claims 7, 17, 24 and 31 depend from claims 1, 11, 21 and 27 respectively, and are allowable on that basis, and because of the unique combinations recited. We note that Priddy et al. arises from an unrelated art - that of ring laser gyroscopes, and is not a proper reference in the present application. Applicant respectfully requests reconsideration.

Rejection of Claims 9, 19, 26 and 33 under 35 U.S.C. §103(a)

The Examiner rejected claims 9, 19, 26 and 33 as unpatentable over Horn et al (US Patent No. 6,379,314) in further view of Gleeson III et al (US Patent No. 4,902,274). Claims 9, 19, 26 and 33 depend from claims 1, 11, 21 and 27 respectively, and are allowable on that basis, and because of the unique combinations recited. Applicant respectfully requests reconsideration.

CONCLUSION

It is respectfully submitted that this application is now in condition for allowance, and such action is requested.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (RXSD 1022-1).

Respectfully submitted,

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Mark A. Haynes, Reg. No. 30,846

HAYNES BEFFEL & WOLFELD LLP
P.O. Box 366
Half Moon Bay, CA 94019
(650) 712-0340 phone
(650) 712-0263 fax